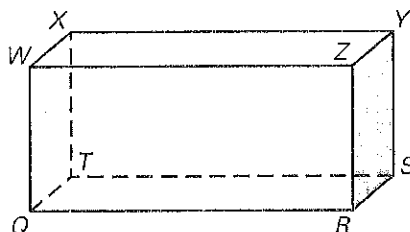


LESSON
3.1
Practice A

For use with pages 146–152

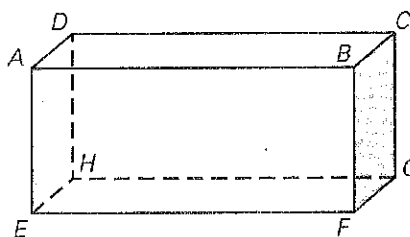
Think of each segment in the diagram as part of a line. Complete the statement with *parallel*, *skew*, or *perpendicular*.

- \overleftrightarrow{WZ} and \overleftrightarrow{XY} are ?
- \overleftrightarrow{WZ} and \overleftrightarrow{QW} are ?
- \overleftrightarrow{SY} and \overleftrightarrow{WX} are ?
- Plane WQR and plane SYT are ?
- Plane RQT and plane WQR are ?



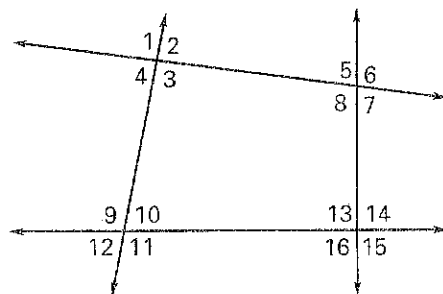
Think of each segment in the diagram as part of a line. Which line(s) or plane(s) appear to fit the description?

- Line(s) parallel to \overleftrightarrow{AB}
- Line(s) perpendicular to \overleftrightarrow{BF}
- Line(s) skew to \overleftrightarrow{CD} and containing point E
- Plane(s) perpendicular to plane ABE
- Plane(s) parallel to plane ABC



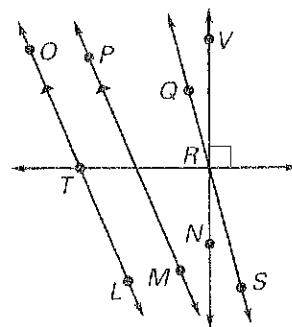
Classify the angle pair as *corresponding*, *alternate interior*, *alternate exterior*, or *consecutive interior* angles.

- $\angle 3$ and $\angle 9$
- $\angle 5$ and $\angle 13$
- $\angle 4$ and $\angle 10$
- $\angle 5$ and $\angle 15$
- $\angle 7$ and $\angle 14$
- $\angle 1$ and $\angle 11$



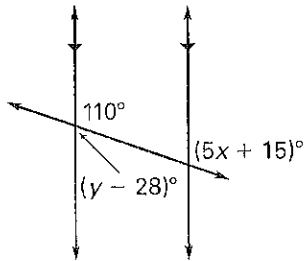
In Exercises 17–20, use the markings in the diagram.

- Name a pair of parallel lines.
- Name a pair of perpendicular lines.
- Is $\overleftrightarrow{QS} \parallel \overleftrightarrow{TR}$?
- Is $\overleftrightarrow{VN} \perp \overleftrightarrow{TR}$?

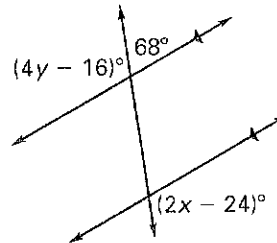


LESSON
3.2**Practice C** *continued*
For use with pages 153–160Find the values of x and y .

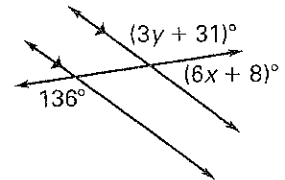
13.



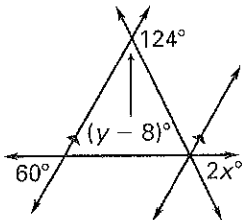
14.



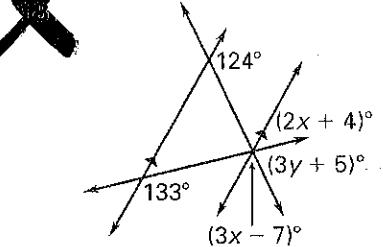
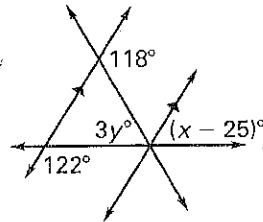
15.



16.



17.



In Exercises 19 and 20, complete the two-column proof.

19. GIVEN: $q \parallel r$ PROVE: $\angle 1 \cong \angle 3$

Statements

Reasons

1. $q \parallel r$

1. _____ ?

2. $\angle 1 \cong \angle 2$

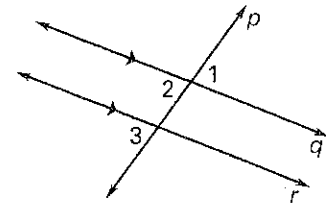
2. _____ ?

3. $\angle 2 \cong \angle 3$

3. _____ ?

4. $\angle 1 \cong \angle 3$

4. _____ ?

20. GIVEN: $q \parallel r, p \parallel t$ PROVE: $\angle 1 \cong \angle 3$

Statements

Reasons

1. $p \parallel t$

1. _____ ?

2. $\angle 1 \cong \angle 2$

2. _____ ?

3. $q \parallel r$

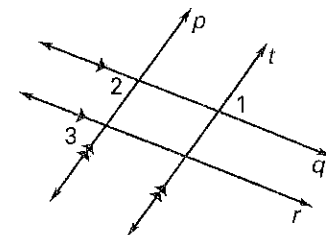
3. _____ ?

4. $\angle 2 \cong \angle 3$

4. _____ ?

5. $\angle 1 \cong \angle 3$

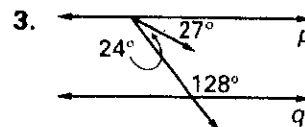
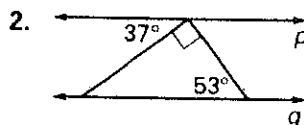
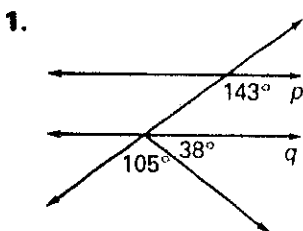
5. _____ ?



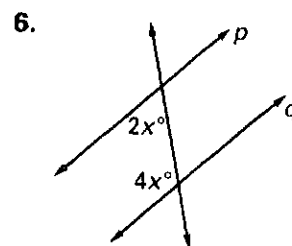
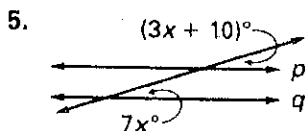
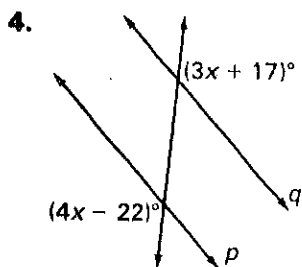
Practice C

For use with pages 150–156

Is it possible to prove that lines p and q are parallel? If so, explain how.



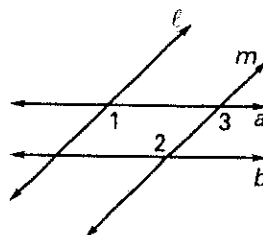
Find the value of x that makes $p \parallel q$.



7. Write a two-column proof.

Given: $\ell \parallel m$, $\angle 1 \cong \angle 2$

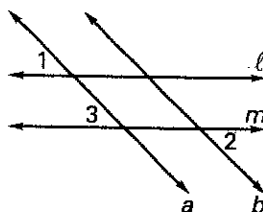
Prove: $a \parallel b$



8. Write a two-column proof.

Given: $\ell \parallel m$, $\angle 1 \cong \angle 2$

Prove: $a \parallel b$



9. a. Explain why $\angle 1$ and $\angle 2$ are not corresponding angles with respect to any pair of lines and transversal.

b. Write a two-column proof.

GIVEN: $\overleftrightarrow{PR} \parallel \overleftrightarrow{QS}$, $\angle 1 \cong \angle 2$

PROVE: $\overleftrightarrow{PQ} \parallel \overleftrightarrow{RS}$

(Hint: Use $\angle QPR$ or $\angle QSR$.)

